Using OSS Software for Government Purposes

Forge.mil

Open Source Software and Copyright
Legal and Business Considerations for Government Use

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Tom Morton: Chief Engineer – Forge.mil
tom.morton@disa.mil

Talking Points

- Forge.mil – background, motivation, and capability
- Setting a broader context
  - Redefining processes & incentives
- Fielding Forge
- Accessing Forge
- Participation
  - Examples
- Challenges
- Conclusion

Motivation & Capability

Field an application life cycle management tool to support the development of OSS within the DoD

- Forge.mil – today
  - provides collaborative ALM infrastructure on NIPR & SIPR
  - 350+ projects (open & controlled) by 6,000+ users
  - extensible platform able to support test & certification
- Harbinger of change since its debut (2008)
  - Software development life cycle
    - use of Agile systems engineering and development methodology
    - adoption of continuous prototyping, testing, and integration
    - transparent communication between stakeholders and developers
  - Acquisition
    - project & program management and inclusion of OSS

Broader Context

National Defense Authorization Act FY 2010, HR 2647 Sec. 804 – Oct. 2009

"The Secretary of Defense shall develop and implement a new acquisition process for information technology systems. The acquisition process developed and implemented pursuant to this subsection shall, to the extent determined appropriate by the Secretary —

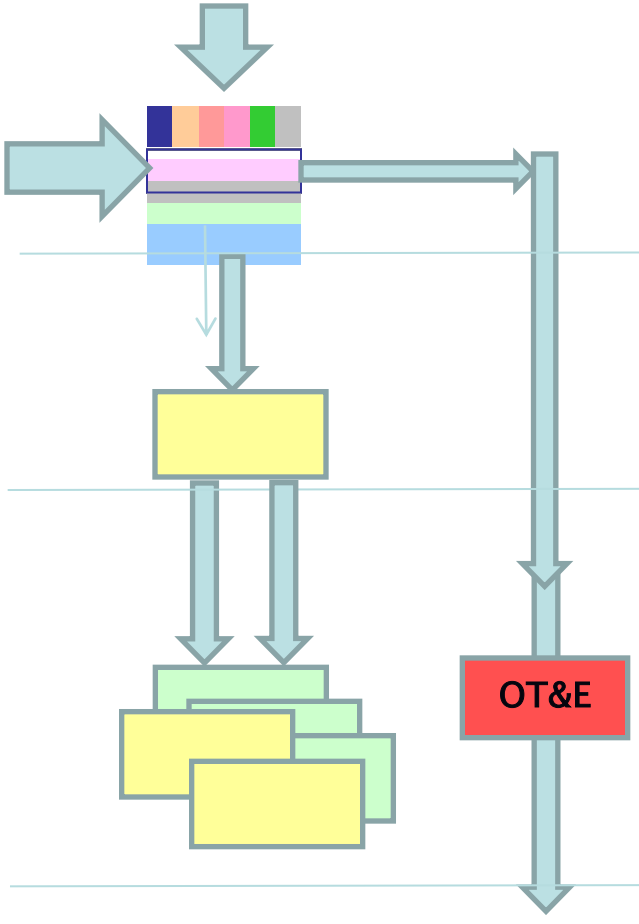
. . . be based on the recommendations in chapter 6 of the March 2009 report of the Defense Science Board Task Force on Department of Defense Policies and Procedures for the Acquisition of Information Technology; and

. . . be designed to include —

1. early and continual involvement of the user;
2. multiple, rapidly executed increments or releases of capability;
3. early, successive prototyping to support an evolutionary approach;
4. a modular, open-systems approach."

It's not just about open source software

Redefining Processes & Incentives[1]



Governance:

- PPBE – *Adopt Level funding*
- Requirements – *Dynamic throughout*
- Oversight – *Continuous*

Program Manager:

- Contracts – *Modular; early/smaller deliverable*
- Prototyping – *Continuous throughout*
- Transparency – *Real-time visibility/data driven*

Functional Processes:

- Test – *Integrated DT/OT/IA/Interop testing*
- System Engineering – *Enterprise, TDD, MDD..*
- Cost Estimating – *Annual/periodic updates*
- Logistics/Training – *Support iterative delivery*
- Technical Maturity – *COTS; not driven by DoD*

Infrastructure:

- Leverage enterprise capability – *DISA DECCs, Test ranges, combined development and test platforms*

1. Source: Mr. Tim Harp – July 2010

Fielding Forge.mil

"Field an application life cycle management tool to support the development of OSS within the DoD"

Fielding Forge

- Software Distribution
  - Use Open Source Initiative approved licenses when ever possible;
  - Use DoD Community Source (DCS) Usage Agreement
    - The DCS Usage Agreement allows DoD to take maximum advantage of its software assets including software acquired with (i) Unlimited Rights or (ii) Government Purpose Rights (GPR) under a Government contract. i.e. use within the Government without restriction; release outside the Government for United States Government Purposes.
    - Software and documentation that requires stricter distribution control or where the DoD has only acquired limited rights under the DFARS, must not be released as DoD Community Source.
  - CONTRIBUTORS ARE RESPONSIBLE FOR DETERMINING WHEHTHER SOFTWARE CAN BE REPRODUCED AND DISTRIBUTED ON THIS SITE (forge.mil).

Fielding Forge

- Limit access to just DoD related personnel
  - Access to Forge.mil requires a
    - valid DoD Common Access Card (CAC)
    - PKI certificate issued by a DoD approved External Certificate Authority (ECA) and DoD sponsor
  - Usage Agreement
    - Use of Service, Consent to Monitoring, Appropriate Conduct, Permission to Use, Licensing, Copyrights and DCS Usage Rights
  - Privacy Policy

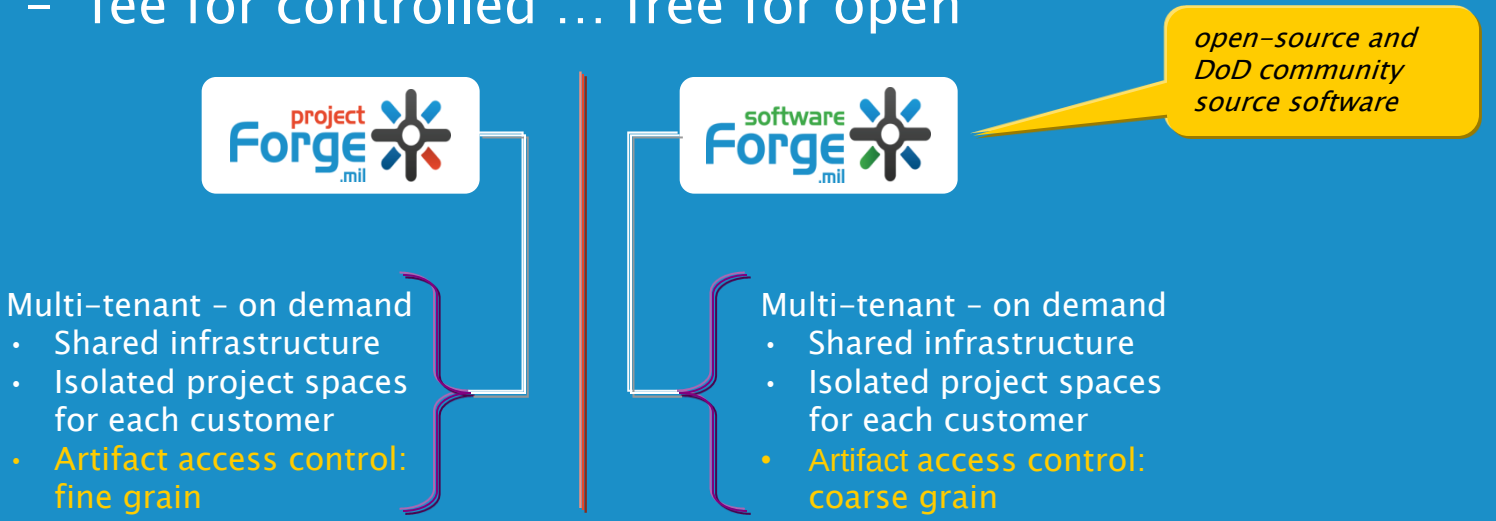
Evolving Forge

- Rev - 1
  - Provide ALM tool for OSS development within DoD
    - behind DoD firewall (on DoD network & floor-space)
      - CAC and ECA certificate enabled – limit access to DoD personnel
    - read access to all projects, artifacts, and source-code
    - write access granted by individual project administrators
- Rev - 2
  - Fee-based offering for DoD program, OSS not required
    - read/write access granted by individual project administrators
- Future
  - Support OSS with controlled access (e.g. ITAR)
    - limit access to qualified DoD personnel (secondary attribute)
- Future
  - Support hybrid OSS & incorporate community functions
    - Develop in restricted space / release in unrestricted space

How issues drive usage and development

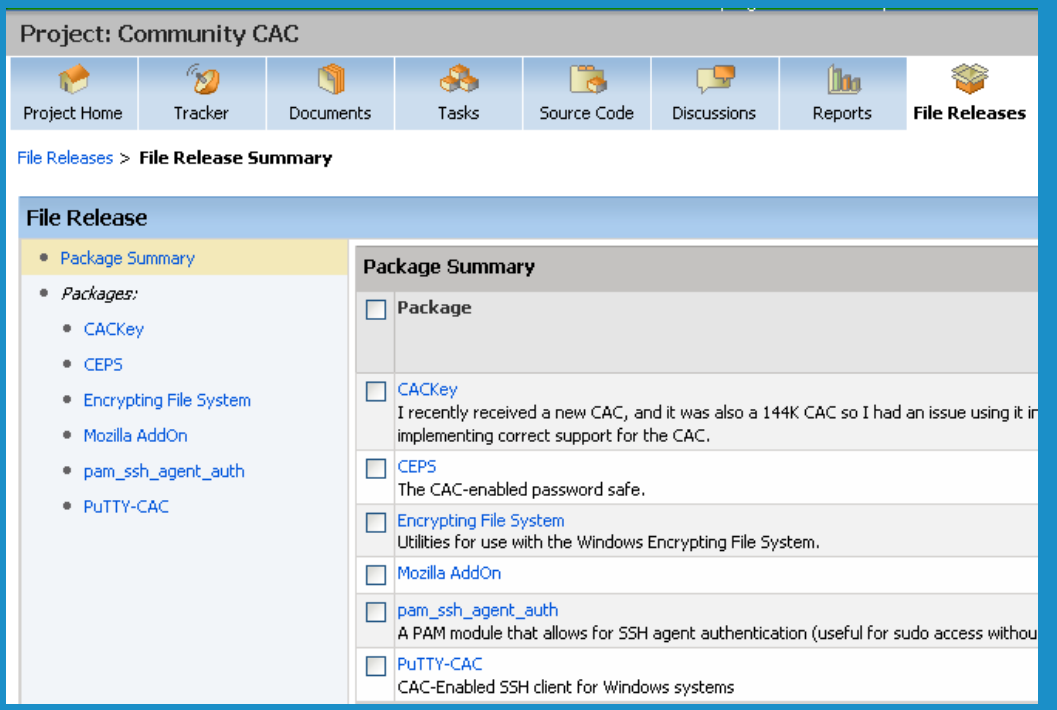
Accessing Forge

- Two types of users
  - DoD CAC … ECA with DoD project-related sponsor
- Two types of projects
  - controlled … open
- Two business models
  - fee for controlled … free for open



Participation

- Project participation
  - Project vetting process
  - Project provisioning
    - Establish the project and mentor the community leader
  - Project administrator
    - Hierarchy of roles
    - Participant access,
    - visibility,
    - “write rights”
  - Development and release



Examples

- Examples
  - DIB, NSLDSS, Community CAC

Project Report

Click on a project name to see a project-related Site Usage Report.

<< first < prev **1** 2 3 4 5 6 7 8 9 10 next > last >>

title	members	item	artifact	discussion_post
NSLDSS	142	3,014	1,053	19
DIB	134	2,607	2,058	106
Community CAC	129	437	13	244
DoDBastille	86	63	0	9
SharePoint	75	99	0	50
USMC - MAGTF C2	58	1,709	88	15
NCES Reference Implem	51	92	0	3
Joint Architecture Integr Project	49	434	0	99
AF Initial Infrastructure B	44	168	62	16

Most Popular Downloads

1	Community CAC: 1.0.3	5493
2	Community CAC: 1.0.2	2651
3	Subversion: 1.5.4-cac1	2001
4	LinuxCAC: DoD Configuration 1.0	1755
5	Community CAC: 1.0.5 Beta	1490

Most Recent Releases

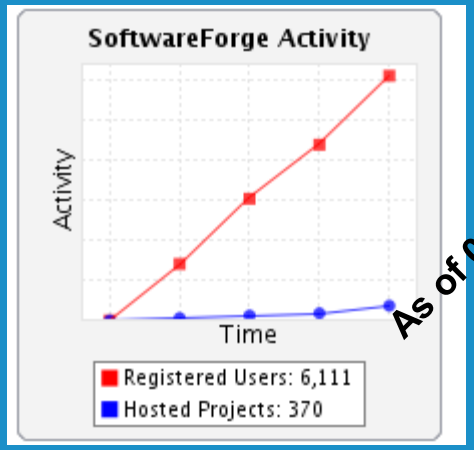
1	MSMT: 5.0.2	07/22/2010
2	DOD Visitor: WinPcap 4.1.2 download	07/21/2010
3	Java Web Application Framework : Final	07/21/2010
4	Java Web Application Framework : 1.0.3 (Final)	07/21/2010
5	Java Web Application Framework : Sample Project - Final	07/21/2010

Challenges

- Desire additional project categories
  - Open with validated attribute e.g. ITAR
  - Integration with authoritative validation sources
- Projects straddling closed and open projects
  - Development: Closed File Release: Open
- Tracking & reporting user activities
  - Who downloaded a file release?
- Automating & enforcement of project level restrictions
  - Non-disclosure agreements
- Addition of advanced collaborative and social features

In Conclusion

- Established a beach head for the development and distribution of OSS within the DoD
  - Addressed many of the first-level questions
- Up-take is steady ~ 1 project & 15 users / day



As of 07-23-2010

Most Recent Projects

1	Common Data Mediation Service	07/22/2010
2	Java Web Application Framework	07/20/2010
3	IMCOM Systems Engineering Framework	07/19/2010
4	IMCOM MSM Application Migration	07/19/2010
5	Afloat Core Services ACS	07/18/2010

- Continue to influence policy & challenge the status quo